

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended): A cationically polymerizable liquid composition comprising:

a cationically polymerizable mixture (A) comprising:

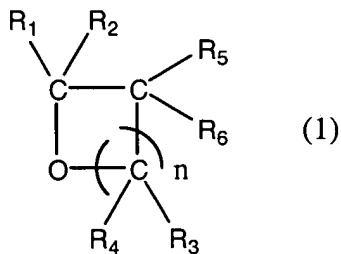
a monofunctional monomer (A-1) having in the molecule only one cyclic ether structure represented by formula (1) below, wherein n is 1;

a polyfunctional monomer (A-2) having in the molecule at least two cyclic ether structures represented by formula (1) below, wherein n is 0, and A-2 is an epoxidized product of a block copolymer produced by anionic polymerization of an ethylene compound and a diene compound; and

a latent cationic polymerization initiator (A-3); and

a solid resin (B) that is a tackifier, is compatible with the above-mentioned mixture (A) at room temperature, and has a softening point of at least 40 °C, and is selected from the group consisting of a rosin resin, a modified rosin resin, a hydrogenated rosin resin, a terpene resin, a terpene phenol resin, an aromatic modified terpene resin, a C₅ or C₉ petroleum resin or a hydrogenated derivative thereof, and a chroman resin;

the composition having a viscosity at 25 °C of 20 Pa·sec or below,



wherein,

~~n denotes 0, 1, or 2, and~~ R_1 to R_6 independently denote hydrogen atoms or hydrocarbon groups, which may have a substituent, and

the complex modulus of elasticity (G^*) and the loss tangent ($\tan \delta$) at 25 °C of the polymer obtained by cationic polymerization satisfy the following conditions,

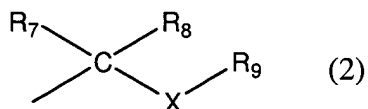
$G^* > 100,000$ (measurement frequency: 0.1 Hz),

$G^* < 4,000,000$ (measurement frequency: 1 Hz),

$G^* > 2,000,000$ (measurement frequency: 100 Hz), and

$\tan \delta$ is at least 0.8 (measurement frequency: 100 Hz).

Claim 2 (previously amended): The cationically polymerizable liquid composition according to Claim 1, wherein at least one of R_1 to R_6 in formula (1) is a substituent represented by formula (2) below,

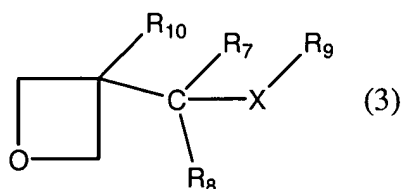


wherein,

R_7 and R_8 denote hydrogen atoms or alkyl groups, which may have a substituent, R_9 is a straight- or branched-chain alkyl group that has at least 4 carbon atoms, and X denotes oxygen or $-\text{CH}_2-$.

Claim 3 (canceled).

Claim 4 (previously amended): The cationically polymerizable liquid composition according to Claim 1, wherein the monofunctional monomer (A-1) is represented by formula (3) below,



wherein,

R₇, R₈ and R₁₀ denote hydrogen atoms or C₁ to C₁₀ alkyl groups, which may have a substituent, R₉ denotes a straight- or branched-chain C₄ to C₂₄ alkyl group, and X denotes an oxygen atom.

Claim 5 (previously amended): The cationically polymerizable liquid composition according to Claim 1, wherein the polyfunctional monomer (A-2) is an epoxy resin containing at least two epoxy groups.

Claim 6 (withdrawn): The cationically polymerizable liquid composition according to Claim 1 wherein the polyfunctional monomer (A-2) contains at least two alicyclic epoxy groups.

Claim 7 (withdrawn): The cationically polymerizable liquid composition according to Claim 1, wherein the polyfunctional monomer (A-2) contains at least two oxetanyl groups.

Claim 8 (withdrawn): The cationically polymerizable liquid composition according to Claim 1, wherein the polyfunctional monomer (A-2) is 3,4-epoxycyclohexylmethyl-3',4'-epoxycyclohexanecarboxylate.

Claim 9 (previously amended): The cationically polymerizable liquid composition according to Claim 1, wherein the cationic polymerization initiator (A-3) is photo-latent or thermo-latent.

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Claim 10 (previously amended): The cationically polymerizable liquid composition according to Claim 1, wherein the solid resin (B) is a hydrogenated petroleum resin and/or a hydrogenated rosin resin.

Claim 11 (withdrawn): The cationically polymerizable liquid composition according to Claim 1, further comprising a monool or a polyol having at least one terminal hydroxy group and a molecular weight of 300 to 10,000.

Claim 12 (previously amended): The cationically polymerizable liquid composition according to Claim 1, wherein the component A-2 is present at 5 to 50 wt% of the total amount of component A-1 plus component A-2.

Claim 13 (withdrawn): The cationically polymerizable liquid composition according to Claim 6, wherein the polyfunctional monomer having at least two alicyclic epoxy groups (A-2) is present at 1 to 30 wt% of the total amount of component A-1 plus component A-2.

Claim 14 (previously amended): The cationically polymerizable liquid composition according to Claim 1, wherein the latent cationic polymerization initiator (A-3) is present at 0.01 to 5 wt% of the total amount of component A-1 plus component A-2.

Claim 15 (previously amended): The cationically polymerizable liquid composition according to Claim 1, wherein the solid resin (B) is present at 10 to 300 parts by weight relative to 100 parts by weight of the cationically polymerizable mixture (A).

Claim 16 (canceled).

Claim 17 (previously amended): The cationically polymerizable liquid composition according to Claim 1, wherein the complex modulus of elasticity (G^*) at 100 °C of the polymer obtained by cationic polymerization satisfies the following condition:

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$G^* > 100,000$ (measurement frequency: 0.1 Hz).

Claim 18 (canceled).

Claim 19 (previously amended): The cationically polymerizable liquid composition according to Claim 1, wherein the glass transition temperature of the polymer obtained by cationic polymerization is 0 °C or below.

Claim 20 (currently amended): A tacky polymer obtained by cationic polymerization of a cationically polymerizable liquid composition comprising:

a cationically polymerizable mixture (A) comprising:

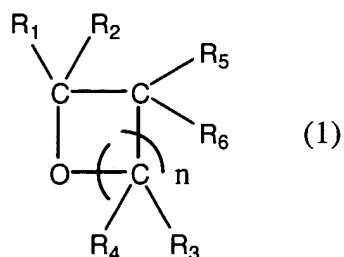
a monofunctional monomer (A-1) having in the molecule only one cyclic ether structure represented by formula (1) below, wherein n is 1;

a polyfunctional monomer (A-2) having in the molecule at least two cyclic ether structures represented by formula (1) below, wherein n is 0, and A-2 is an epoxidized product of a block copolymer produced by anionic polymerization of an ethylene compound and a diene compound; and

a latent cationic polymerization initiator (A-3); and

a solid resin (B) that is a tackifier, is compatible with the above-mentioned mixture (A) at room temperature, and has a softening point of at least 40 °C, and is selected from the group consisting of a rosin resin, a modified rosin resin, a hydrogenated rosin resin, a terpene resin, a terpene phenol resin, an aromatic modified terpene resin, a C₅ or C₉ petroleum resin or a hydrogenated derivative thereof, and a chroman resin;

the composition having a viscosity at 25 °C of 20 Pa·sec or below,



wherein,

~~n denotes 0, 1, or 2, and~~ R₁ to R₆ independently denote hydrogen atoms or hydrocarbon groups, which may have a substituent, and

the complex modulus of elasticity (G*) and the loss tangent (Tan δ) at 25 °C of the polymer obtained by cationic polymerization satisfy the following conditions,

G* > 100,000 (measurement frequency: 0.1 Hz),

G* < 4,000,000 (measurement frequency: 1 Hz),

G* > 2,000,000 (measurement frequency: 100 Hz), and

Tan δ is at least 0.8 (measurement frequency: 100 Hz).

Claim 21 (canceled).